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09/934,257	08/21/2001	Gary M. Schneider	2512/7	6474

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Jeffrey A. Pine
BANIAK PINE & GANNON
Suite 1200
150 N. Wacker Drive
Chicago, IL 60606

EXAMINER

BOYCE, ANDRE D

ART UNIT

PAPER NUMBER

3623

DATE MAILED: 02/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/934,257

Applicant(s)

SCHNEIDER, GARY M.

Examiner

Andre Boyce

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-52 have been examined.

Specification

2. The disclosure is objected to because of the following informalities: The bullet list on beginning on page 29, line 28 and ending on page 30, line 10 must be incorporated into the specification, excluding the bullets. Appropriate correction is required.
3. The abstract of the disclosure is objected to for use of the term "Disclosed" in line 1. The abstract should not refer to purported merits. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 37-52 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

A computer program is functional descriptive material, and is not considered to be a statutory class of invention. When the material is recorded on some computer-

readable medium it becomes structurally and functionally interrelated to the medium and thus considered statutory.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 4-7, 9-10, 13-14, 16, 19, 22-25, 27-28, 31-32, 34, 37, 40-43, 45-48, and 50 are rejected under 35 U.S.C. 102(b) as being anticipated by Hargrove, Jr. et al (USPN 5,897,619).

As per claim 1, Hargrove, Jr. et al discloses a method for developing a custom farm management plan for production agriculture pertaining to a farm (interactive farm management system 10, see Figure 1), comprising the steps of: prompting a user to input information pertaining to said farm (see user interfaces Figures 4-11 and column 7, lines 10-13); obtaining said input information pertaining to said farm from said user via a global electronic communications network (networked computers, see column 4, lines 23-25); obtaining third party industry information from at least one third party industry professional via said global electronic communications network (crop insurance information, see column 7, lines 1-6); analyzing said input information pertaining to said farm and said third party industry information obtained from said third party industry professional (verify regulations

crop configuration, and analyze claim validity, see column 7, lines 13-21); generating a first custom farm management plan based on said input information and said third party industry information (generation of policy/plan, see column 7, lines 6-9); transmitting said custom farm management plan to said user to be displayed by said user (via system 10).

As per claim 4, Hargrove, Jr. et al disclose the step of transmitting an instruction signal to said user via said global electronic communications network.

As per claim 5, Hargrove, Jr. et al discloses at least one farm management preference selected from the group of agronomic, operational and physical farm information (shape of field, see column 7, lines 1-4).

As per claim 6, Hargrove, Jr. et al discloses industry information is selected from the group of seed prices, fertilizer prices, production contracts, agriculture insurance rates (see column 4, lines 37-40), agriculture marketing information, agriculture consultant's information, agriculture accounting information, and lender's interest rates.

As per claim 7, Hargrove, Jr. et al discloses said third party industry professional is selected from the group of input supply retailers, seed manufacturers, crop protection manufacturers, seed manufacturers' representatives, crop protection manufacturers' representatives, independent crop consultants, crop insurance agents (see column 7, lines 1-3), agricultural lenders, marketing advisors, agricultural certified public accountants, agricultural equipment manufacturers, and agricultural equipment manufacturers' dealers.

As per claim 9, Hargrove, Jr. et al discloses said global electronic communication network is selected from the group consisting of the Internet, an Intranet, an extranet, a Local Area Network, a telephone network, a cellular network, a satellite network, a personal communication system, a television network, a wireless data network, a wireless Local Area Network, a wireless local loop/distribution system, a Voice Over Internet Protocol network, and a wide area network (networked computers, see column 4, lines 23-25).

As per claim 10, Hargrove, Jr. et al discloses the step of allowing access to said input information by said third party industry professional (agent, see column 7, lines 1-3).

As per claim 13, Hargrove, Jr. et al discloses the step of performing an iterative process to determine at least one additional farm management plan (modification of policy/plan, see column 7, lines 42-45).

As per claim 14, Hargrove, Jr. et al discloses said iterative process comprises modifying at least one controllable variable, said at least one controllable variable selected from the group of crop programs, crop rotation patterns, different amounts of production contracts, different types of production contracts, and crop insurance (modification of policy/plan, see column 7, lines 42-45).

As per claim 16, Hargrove, Jr. et al discloses said user selecting a desired farm management plan that meets desired goals from the first farm management plan and the at least one additional farm management plan (modifications to policy/plan are based upon desired goals of the farmer).

Claims 19, 22-25, 27-28, 31-32, and 34 are rejected based upon the rejections of claims 1, 4-7, 9-10, 13-14, and 16, respectively, since they are the system claims corresponding to the method claims.

Claims 37, 40-43, 45-48, and 50 are rejected based upon the rejections of claims 1, 4-7, 9-10, 13-14, and 16, respectively, since they are the computer program claims corresponding to the method claims.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2-3, 11-12, 20-21, 29-30 and 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hargrove, Jr. et al (USPN 5,897,619), in view of Wilcox (Accounting on It: Use of Accounting Software in Managing Farms, December 1997).

As per claim 2, Hargrove, Jr. et al does not disclose the custom farm management plan comprising crop selection and allocation of farm resources for seasonal or multi-seasonal cropping strategies. Wilcox discloses crop selection based upon a software planning system and re-allocation of acreage (see page 1, ¶¶ 12-13). Both Hargrove, Jr. et al and Wilcox are concerned with effective farm

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management, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include crop selection and allocation of resources in Hargrove, Jr. et al, as seen in Wilcox, thereby including further variables in the determination of the farm management plan in Hargrove, Jr. et al, thus making the method more robust and customer specific.

As per claim 3, Hargrove, Jr. et al does not disclose farm resources comprising capital, land, labor, machinery, crop storage, irrigation system capacity and water rights, and nutrient loading. However, the Examiner takes Official Notice that the listed resources are old and well known in the farming industry, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include the resources listed above in Hargrove, Jr. et al, thereby allocating all resources available to the user, this making the method more robust.

As per claims 11-12, Hargrove, Jr. et al does not disclose said display of said custom farm management plan is in tabular and graphical form. Wilcox discloses the use of graphs and charts as decision-making tools (see page 2, ¶ 3). Both Hargrove, Jr. et al and Wilcox are concerned with effective farm management, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include the plan in tabular and graphical form in Hargrove, Jr. et al, as seen in Wilcox, thus providing the user with alternate methods to analyze the information, thereby increasing the flexibility of the method.

Claims 20-21 and 29-30 are rejected based upon the rejections of claims 2-3 and 11-12, respectively, since they are the system claims corresponding to the method claims.

Claims 38-39 are rejected based upon the rejections of claims 2-3, respectively, since they are the computer program claims corresponding to the method claims.

10. Claims 8, 15, 26, 33, 44, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hargrove, Jr. et al (USPN 5,897,619), in view of McCauley (USPN 6,058,351).

As per claim 8, Hargrove, Jr. et al does not disclose a mathematical optimization algorithm selected from the group of linear, integer, mixed integer programming, and parametric programming. McCauley discloses mathematical transformation of input data, such as vector normalization (see column 4, lines 41-47) applied to site-specific farming. Both Hargrove, Jr. et al and McCauley are concerned with effective farm management, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include mathematical optimization in Hargrove Jr. et al, as seen in McCauley, thereby being able to optimize yield as a function of inputs being applied during the construction of the production plan (see McCauley, column 1, lines 17-21).

As per claim 15, Hargrove, Jr. et al does not disclose said iterative process comprises modifying at least one uncontrollable variable, said at least one uncontrollable variable selected from the group of crop prices, yields and production

costs. McCauley discloses yield as a user selected field characteristics (see column 4, lines 22-26) as input into the site-specific production plan. Both Hargrove, Jr. et al and McCauley are concerned with effective farm management, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include modifying at least one uncontrollable variable in Hargrove Jr. et al, as seen in McCauley thereby being able to optimize yield as a function of inputs being applied during the construction of the production plan (see McCauley, column 1, lines 17-21).

Claims 26 and 33 are rejected based upon the rejections of claims 8 and 15, respectively, since they are the system claims corresponding to the method claims.

Claims 44 and 49 are rejected based upon the rejections of claims 8 and 15, respectively, since they are the computer program claims corresponding to the method claims.

11. Claims 17-18, 35-36, and 51-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hargrove, Jr. et al (USPN 5,897,619), in view Batte (Factors Influencing the Profitability of Precision Farming, First Quarter 2000).

As per claims 17-18, Hargrove, Jr. et al does not disclose said user compares between the first farm management plan and the at least one additional farm management plan based on gross income, downside risk, opportunity cost risk and resource use, and the desired farm management plan determined from profit maximization, risk minimization, resource minimization, and environmental

stewardship. Batte discloses site-specific management based upon input levels, which effects both revenues and costs (i.e., income and risk, see Figures 1 and 2), based upon the law of diminishing returns. Batte also discloses managing variable and fixed costs to maximize production and environmental benefits (page 17, right column, last paragraph). Both Hargrove, Jr. et al and Batte are concerned with effective farm management, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include the plan based on gross income, downside risk, opportunity cost risk and resource use, and the desired farm management plan determined from profit maximization, risk minimization, resource minimization, and environmental stewardship, in Hargrove Jr. et al, as seen in Batte, thereby developing production plans that improve both the profitability of the farm and to lessen environmental damages (see Batte, page 17, middle column, last paragraph).

Claims 35-36 are rejected based upon the rejections of claims 17-18, respectively, since they are the system claims corresponding to the method claims.

Claims 51-52 are rejected based upon the rejections of claims 17-18, respectively, since they are the computer program claims corresponding to the method claims.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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-Janzen et al (USPN 6141614) disclose a computer aided farming system.

-Blackmer (USPN 6505146) discloses analysis of spatial variations in field and crop performance.

-Mangold (Farming with Precision) discloses precision farming gathering data to manage fields.

-Abel et al (USPN 5467271) discloses a mapping and analysis system to generate agricultural maps.

-Reep (USPN 6327569) discloses linking to a harvest environment using precision farming techniques.

-Nakano (JP411134398A) discloses managing a farm via personal computer.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre Boyce whose telephone number is (703) 305-1867. The examiner can normally be reached on 9:30-6pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (703) 305-9643. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and After Final communications, and (703) 746-7305 for informal/draft communications.

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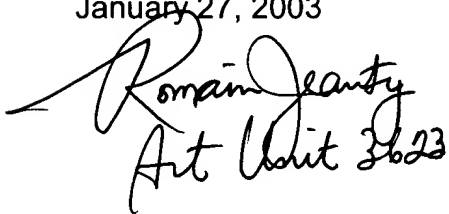
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.



adb

January 27, 2003



Romain Jeanty
Art Unit 3623